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EXAMINER
PATEL, NIRAV B

ART UNIT	PAPER NUMBER
2135	

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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No.	Applicant(s)
	10/828,956	KWAN, JOHN MAN KWONG
	Examiner	Art Unit
	NIRAV PATEL	2135

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE <u>3</u> MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

1)☒ Responsive to communication(s) filed on <u>25 January 2008 (Amendment)</u>.

2a)☒ This action is **FINAL**.   2b)☐ This action is non-final.

3)☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

4)☒ Claim(s) <u>1-19</u> is/are pending in the application.

    4a) Of the above claim(s) _____ is/are withdrawn from consideration.

5)☐ Claim(s) _____ is/are allowed.

6)☒ Claim(s) <u>1-19</u> is/are rejected.

7)☐ Claim(s) _____ is/are objected to.

8)☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

9)☐ The specification is objected to by the Examiner.

10)☐ The drawing(s) filed on _____ is/are: a)☐ accepted or b)☐ objected to by the Examiner.

    Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).

    Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).

11)☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

12)☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).

    a)☐ All   b)☐ Some * c)☐ None of:

      1.☐ Certified copies of the priority documents have been received.

      2.☐ Certified copies of the priority documents have been received in Application No. _____.

      3.☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

    * See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

1)☐ Notice of References Cited (PTO-892)

2)☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)

3)☐ Information Disclosure Statement(s) (PTO/SB/08)
    Paper No(s)/Mail Date _____.

4)☐ Interview Summary (PTO-413)
    Paper No(s)/Mail Date. _____.

5)☐ Notice of Informal Patent Application

6)☐ Other: _____.

DETAILED ACTION

1. Applicant's amendment filed on Jan. 25, 2008 has been entered. Claims 1-19 are pending.

Claim Rejections - 35 USC § 102

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis

for the rejections under this section made in this Office action:

> A person shall be entitled to a patent unless –
>
> (e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

2. Claim 1-4 and 14-16 are rejected under 35 U.S.C. 102(e) as being anticipated by Yoshiura et

al (US Patent No. 6,711,276).

As per claim 1, Yoshiura discloses:

means for locating in the digital data, using a predetermined pattern, at least two values

that represents a flat area [col. 6 lines 46-57 i.e. detecting a target block]; and means for modifying

the values in the flat area to encode a mark into the fiat area [col. 7 lines 7-22 i.e. modifying/changing

luminance or quantities of each of block]; wherein the means for locating in the digital data is further

comprised of: means for calculating a variability for a selected portion of the digital data using the

predetermined pattern [col. 6 lines 54-63, col. 8 lines 29-36 i.e. calculating/determining a motion

vector]; and means for representing the flat area when the variability is less than a predetermined

amount [col. 8 lines 48-57, Fig. 5 i.e. determining rules and area/block based on the magnitude of the

motion vector]; wherein the apparatus for encoding is part of a device receiving an unencoded data to create the digital data; and wherein the apparatus for encoding is part of the device using the values in the flat area to create all encoded data [Fig. 1, 2].

As per claims 2, 3, the rejection of claim 1 is incorporated and Yoshiura teaches:

the predetermined pattern is a regular pattern/ an irregular pattern [Fig. 3, col. 6 lines 54-64].

As per claim 4, the rejection of claim 1 is incorporated and Yoshiura teaches:

wherein the predetermined pattern identifies a consecutive set of values [Fig. 3, 4].

As per claim 14, the rejection of claim 1 is incorporated and Yoshiura teaches:

at least one of the means is implemented using a computer accessing a memory [Fig. 1, 2].

As per claims 15-16, the rejection of claim 1 is incorporated and Yoshiura teaches:

wherein the device is included in a computer receiving the unencoded data, wherein the device communicates with a processor within a computer to create the encoded data within the computer [Fig. 1, 2,].

Claim Rejections - 35 USC § 103

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negatived by the manner in which the invention was made.

3.   Claims 5-13 and 17-19 are rejected under 35 U.S.C. 103(a) as being unpatentable over Yoshiura et al (US Patent No. 6,711,276) and in view of Echizen et al (US Patent No. 6,728,408).

As per claim 5, the rejection of claim 1 is incorporated and Yoshiura teaches modifying the value [col. 10 lines 5-14].

Echizen teaches:

wherein the means for modifying the values is further comprised of: means for modifying tile values according to a recognizable amount, adding the recognizable amount to the value, subtracting the recognizable amount from the value [col. 6 lines 46-62, col. 4 lines 13-29].

Therefore, it would have been obvious to a person of ordinary skill in the art at the time the invention was made to combine Echizen with Yoshiura, since one would have been motivated to provide watermark embedding technique capable of minimizing the number of pixels, while a reliability of detecting embedded data is maintained high [Echizen, col. 1 liens 63-67].

As per claims 6, 7, the rejection of claim 5 is incorporated and Yoshiura teaches modifying the value [col. 10 lines 5-14].

Echizen teaches:

wherein the means for adding/subtracting the recognizable amount to/from the value[col. 6 lines 46-62, col. 4 lines 13-29].

As per claim 8, the rejection of claim 5 is incorporated and Yoshiura teaches:

a means for calculating a function of the variability in the flat area [col. 8 lines 29-41, col. 6 lines 46-64].

As per claim 9, the rejection of claim 8 is incorporated and Yoshiura teaches:

means for computing the recognizable amount as a multiple of the variability in the flat area [col. 8 lines 29-41, col. 6 lines 46-64].

<u>As per claim 10</u>, the rejection of claim 5 is incorporated and Echizen teaches:

means for modifying the values in the flat area to provide at least one known peak in the flat area [col. 4 lines 14-38].

<u>As per claim 11</u>, the rejection of claim 1 is incorporated and Echizen teaches:

means for modifying at least two of the values in the digital data to represent a single mark value in the flat area [col. 6 lines 46-61].

<u>As per claim 12</u>, the rejection of claim 1 is incorporated and Echizen teaches:

means for locating in the digital data, using a predetermined pattern, at least two values that represents a second fiat area; and means for modifying the values in the second fiat area to encode the mark into the second flat area [Fig. 1].

<u>As per claim 13</u>, the rejection of claim 1 is incorporated and Echizen teaches:

means for converting the format of the digital data [col. 2 lines 38-41].

<u>As per claims 17-18</u>, the rejection of claim 1 is incorporated and Echizen teaches:

wherein the predetermined pattern is two dimensional [col.2 lines 13-15].

Response to Argument

4. Terminal disclaimer has been filed on Jan. 25, 2008 and therefore, the double patenting rejection is withdrawn.

Applicant's arguments filed Jan. 25, 2008 have been fully considered but they are not persuasive.

Regarding applicant's argument "Yoshiura doesn't anticipate the claim limitation", Examiner still maintains since Yoshiura's invention relates to a method and apparatus for embedding

information such as copy control information and copyright information in digitized contents information of a still picture or moving picture. The invention is to provide a method and apparatus for embedding watermark information in a moving picture optimized in change position and/or change intensities on the basis of both the property as viewed as a moving picture and the property as viewed as a still picture. A moving picture is considered as contents information. Moving picture data includes a plurality of still picture frames. By making a change in a part of pixels of each still picture frame, watermark information can be embedded in the moving picture. As shown in Fig. 1, digital watermark information embedding hardware configuration comprising an input/output device for inputting data, such as moving picture data in which watermark information should be embedded and outputting a moving picture with watermark information embedded therein. The central processing unit compares each of still picture frames forming a moving picture with a subsequent frame which appears with a delay of a predetermined number of frames on the time axis, and thereby detects a motion of a subject, i.e. the property as viewed as a moving picture (i.e. detecting still image and moving image from unencoded data, wherein the still image has variability less than a predetermined amount). On the basis of both the property of an image of each frame as viewed as a still picture and the property of the image of each frame as viewed as a moving picture, the central processing unit selects embedding positions of watermark information and determines changes quantities of pixel values in those positions. The inter-still-picture-frame motion detection routine compares each still picture frame being noticed as the subject of watermark information embedding with a still picture frame appearing K frames after on the time axis and thereby detects a motion of the subject included in the target frame, which comprises various properties (e.g. luminance, quantity...) that represents the target frame/block in the motion of the subject. As shown in Fig. 3, a later frame located K frames

after the target frame is first taken out from the moving picture file as a reference frame. The target frame is divided into blocks. A first block of the target frame is taken out as a target block. A motion between the target block and the later frame is detected, and the motion vector thus determined is delivered to the rule selection routine. The rule selection routine receive the motion vector of each image block, selects one out of a plurality of rules stored in the rule set file, according to the magnitude of the motion vector. A rule prepared in the rule set table defines relations between the degree of change easiness of a block in a still picture frame and an intra-block change factor. For each block, the change easiness degree indicates to what extent the luminance can be changed while maintaining inconspicuousness. The change routine receives the luminance change positions and/or the change quantities of each of image bocks of the target frame from the change position determination routine as shown in Fig. 7. According to watermark information specified by the insertion information file, the change routine then changes luminance of a specific pixel included in the image block. Each of bits of a bit pattern forming watermark information is associated with a plurality of image blocks in mutual dispersed position relations in the still picture frame beforehand (encoding the mark into the data). Therefore, Yoshiura teaches an apparatus for encoding a mark (watermark information) into the digital data as above and thus, teaches the claim subject matter/limitation.

For the above reasons, it is believed that the rejections should be sustained.

Conclusion

5. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Nirav Patel whose telephone number is 571-272-5936. If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Kim Vu can be reached on 571-272-3859. The fax and phone numbers for the organization where this application or proceeding is assigned is 571-273-8300. Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the receptionist whose telephone number is 571-272-2100.

NBP

5/19/08

/KIMYEN VU/

Supervisory Patent Examiner, Art Unit 2135